

# Work Order ID 62111

Thursday, September 16, 2010 9:00:01 AM



Page 1

Item ID: D2571

Accept



Setup Start



Revision ID:

Stop



Item Name: Saddle, Fwd Out 205

Start Date: 9/16/2010 Start Qty: 12.00



Cust Item ID:

Required Date: 9/23/2010 Req'd Qty: 12.00

Customer:

Reference:

Run Start



Approvals: Process Plan: *[Signature]*

Date: 10-9-14

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2571	Rev E

100

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Program Batch No. 62111 Double check by: *[Signature]* ☐ 1-Machine Step No 1  
per Folio FA051 and inspect per attached Dimension Sheets ☐ 2-Machine Step  
No 2 per Folio FA051 and inspect per attached Dimension Sheets ☐ 3-Machine  
Step No 3 per Folio FA051 and inspect

*aml 10/10/14*

*SL 10/10/14*

12

0

110

0.00



CONVENTIONAL MILLING MACHINE

Mill Conv

Memo

0.00

Conventional Milling Machine

Machine keyway as per dwg D2571 & D2572

*ml 10-10-14*

12

0

120

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

*SL 10/10/14*

*aml 10/10/14*  
*ml 10-10-14*

12

0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 62111

Thursday, September 16, 2010 9:00:01 AM



Page 2

Item ID: D2571

Accept



Setup Start



Revision ID:

Stop



Item Name: Saddle, Fwd Out 205

Start Date: 9/16/2010 Start Qty: 12.00



Cust Item ID:

Required Date: 9/23/2010 Req'd Qty: 12.00

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

A.A 10/10/20

12

0

140

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

→ JH 10/10/20

12

0

150

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

M115291

BR 10-10-21

START TIME:

8:00

OVEN TEMPERATURE:

FINISH TIME:

8:30

12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 62111

Thursday, September 16, 2010 9:00:01 AM



Page 3

Item ID: D2571

Accept



Setup Start



Revision ID:

Stop



Item Name: Saddle, Fwd Out 205

Start Date: 9/16/2010 Start Qty: 12.00



Cust Item ID:

Required Date: 9/23/2010 Req'd Qty: 12.00

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 	QC3- Inspect Part Finish	0.00							
QC Quality Control	Memo	0.00				12	0		
170 	Identify as per dwg & Stock Location: 433	0.00							
Packaging Packaging	Memo	0.00							
180 	QC21- Final Inspection - Work Order Release	0.00							
QC Quality Control	Memo	0.00							

10/10/21

10/10/21 (12)

10/10/21  
ME  
10-10-21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Thursday, September 16, 2010 9:00:06 AM

Page 1

Work Order ID: 62111



Parent Item: D2571



Parent Item Name: Saddle, Fwd Out 205

Start Date: 9/16/2010

Required Date: 9/23/2010

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP: I02.10.02 Re-format; Change to Dwg Rev. D & incorporated  
D2572 KJ

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-007  Saddle Billet		Manufactured	No			100	Each	26.0000	1	12		2010.10.19	

Location

Loc Qty

Loc Code

MAT42

26

46412

2

60314

24

12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 4211
<b>Description:</b> Saddle, Fwd Outboard	<b>Part Number:</b> D2571
<b>Inspection Dwg:</b> D2571 Rev. E	<b>Page 1 of 1</b>

Inspect dimensions highlighted on inspection sheet drawing D2571 Rev. E and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.438	0.443		.440	.440	.440	.440	Vern	SL-3
B	1.745	1.755		1.750	1.750	1.750	1.750		"
C	3.495	3.505		3.500	3.499	3.500	3.500		"
D	1.745	1.755		1.750	1.750	1.750	1.750		"
E	7.990	8.010		8.000	8.000	8.000	8.001	Vern	CNC-02
F	0.490	0.510		.501	.501	.500	.505	Vern	SL-3
G	0.257	0.262		.258	.260	.260	.260		"
H	0.375	0.380		.376	.377	.377	.377		"
I	0.490	0.510		.500	.500	.500	.498		"
J	1.174	1.184		1.179	1.177	1.178	1.178		"
K	0.558	0.578		.566	.566	.568	.566		"
L	1.174	1.184		1.179	1.177	1.178	1.178		"
M	1.490	1.500		1.495	1.495	1.495	1.495		"
N	2.495	2.505		2.500	2.499	2.499	2.500		"
O	3.869	3.879		3.874	3.872	3.873	3.873		"
P	0.115	0.135		.126	.128	.128	.128	mic	SL-4
Q	0.115	0.135		.135	.135	.135	.135	Vern	SL-3
R	0.240	0.260		.251	.257	.257	.250		"
S	0.115	0.135		.128	.127	.129	.132	deep mic	118-120
T	0.178	0.198		.188	.188	.188	.188	R-G	
U	2.940	2.980		2.960	2.960	2.960	2.960	Vern	SL-3
V	0.230	0.250		.238	.234	.236	.238		"
W	0.115	0.135		.121	.120	.122	.122	deep mic	118-120
X	0.308	0.313		.312	.312	.312	.312		"
Y	0.760	0.765		.760	.760	.760	.760		"
Z	0.352	0.372		.364	.367	.365	.367	Vern	SL-3
AA	0.470	0.530		.500	.500	.500	.500	R-G	
AB	0.615	0.635		.626	.627	.626	.627	Vern	SL-3
AC	0.053	0.073		.063	.063	.063	.063	R-G	
AD	0.240	0.260		.252	.246	.245	.245	Vern	SL-3
AE	1.375	1.395		1.385	1.394	1.391	1.390	Dial	
AF	0.115	0.135		.130	.132	.133	.133	Vern	SL-3
AG	0.240	0.280		.260	.260	.260	.260		"
AH	0.240	0.260		.253	.243	.245	.246		"
AI	2.000	2.020		2.003	2.009	2.005	2.004	Dial	
AJ	0.023	0.043		.030	.030	.030	.030	Vern	SL-3
Accept/Reject									

Measured by: SL	10/10/14
Date: 10/10/14	

Audited by: H.A	10/10/20
Date: 10/10/20	

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 6211
<b>Description:</b> Saddle, Fwd Outboard	<b>Part Number:</b> D2571
<b>Inspection Dwg:</b> D2571 Rev. E	<b>Page 1 of 1</b>

Inspect dimensions highlighted on inspection sheet drawing D2571 Rev. E and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				#5	#6	#7	#8		
A	0.438	0.443		.440	.440	.440	.440	Vern	ML-7
B	1.745	1.755		1.750	1.750	1.750	1.750	"	"
C	3.495	3.505		3.500	3.500	3.500	3.500	"	"
D	1.745	1.755		1.750	1.750	1.750	1.750	"	"
E	7.990	8.010		8.001	8.001	8.001	8.001	"	CAL-02
F	0.490	0.510		.500	.504	.503	.503	"	ML-7
G	0.257	0.262		.260	.260	.260	.260	Vern	ML-7
H	0.375	0.380		.377	.377	.377	.377	Vern	ML-7
I	0.490	0.510		.501	.498	.499	.498	"	"
J	1.174	1.184		1.178	1.178	1.178	1.178	"	"
K	0.558	0.578		.568	.566	.566	.565	"	"
L	1.174	1.184		1.178	1.178	1.178	1.178	"	"
M	1.490	1.500		1.495	1.494	1.495	1.495	"	"
N	2.495	2.505		2.500	2.499	2.500	2.500	"	"
O	3.869	3.879		3.873	3.874	3.873	3.874	"	"
P	0.115	0.135		.127	.127	.127	.127	Milr	118-120
Q	0.115	0.135		.135	.135	.135	.135	Vern	ML-7
R	0.240	0.260		.251	.250	.250	.250	"	"
S	0.115	0.135		.130	.130	.133	.130	Milr	118-120
T	0.178	0.198		.188	.188	.188	.188	Rad-gage	REF
U	2.940	2.980		2.960	2.960	2.966	2.960	Vern	ML-7
V	0.230	0.250		.236	.236	.238	.238	"	"
W	0.115	0.135		.126	.126	.126	.126	Milr	118-120
X	0.308	0.313		.312	.312	.310	.310	Vern	ML-7
Y	0.760	0.765		.760	.760	.760	.760	"	"
Z	0.352	0.372		.367	.368	.367	.367	"	"
AA	0.470	0.530		.500	.500	.500	.500	Rad-gage	
AB	0.615	0.635		.626	.626	.626	.626	Vern	ML-7
AC	0.053	0.073		.063	.063	.063	.063	Rad-gage	
AD	0.240	0.260		.246	.247	.245	.247	Vern	ML-7
AE	1.375	1.395		1.390	1.391	1.390	1.390	dial	
AF	0.115	0.135		.133	.134	.132	.132	Vern	ML-7
AG	0.240	0.280		.260	.266	.258	.258	"	"
AH	0.240	0.260		.246	.245	.247	.246	Vern	ML-7
AI	2.000	2.020		2.006	2.007	2.004	2.005	dial	
AJ	0.023	0.043		.030	.030	.030	.030	Vern	ML-7
Accept/Reject									

Measured by: <i>ML</i>
Date: 10/10/14

Audited by: <i>K.A</i>
Date: 10/10/20

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	<i>[Signature]</i>

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 6211
<b>Description:</b> Saddle, Fwd Outboard	<b>Part Number:</b> D2571
<b>Inspection Dwg:</b> D2571 Rev. E	<b>Page 1 of 1</b>

Inspect dimensions highlighted on inspection sheet drawing D2571 Rev. E and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				1	2	3	4		
A	0.438	0.443		.440	.440	.440	.440	Vern	ML-7
B	1.745	1.755		1.750	1.750	1.750	1.750	"	"
C	3.495	3.505		3.500	3.500	3.500	3.500	"	"
D	1.745	1.755		1.750	1.750	1.750	1.750	"	"
E	7.990	8.010		8.005	8.005	8.005	8.005	Vern	CNL-02
F	0.490	0.510		.503	.505	.505	.505	"	ML-7
G	0.257	0.262		.260	.258	.258	.258	"	"
H	0.375	0.380		.377	.377	.377	.377	"	"
I	0.490	0.510		.500	.503	.503	.507	"	"
J	1.174	1.184		1.178	1.178	1.178	1.178	"	"
K	0.558	0.578		.568	.568	.568	.568	"	"
L	1.174	1.184		1.178	1.178	1.178	1.178	"	"
M	1.490	1.500		1.495	1.495	1.495	1.495	"	"
N	2.495	2.505		2.500	2.500	2.500	2.500	"	"
O	3.869	3.879		3.873	3.873	3.873	3.873	"	"
P	0.115	0.135		.128	.127	.127	.127	Micro	118-120
Q	0.115	0.135		.135	.135	.135	.135	Vern	ML-7
R	0.240	0.260		.250	.250	.250	.250	"	"
S	0.115	0.135		.132	.131	.131	.131	Micro	118-120
T	0.178	0.198		.188	.188	.188	.188	Rad gage	
U	2.940	2.980		2.960	2.964	2.964	2.964	Vern	ML-7
V	0.230	0.250		.235	.238	.238	.238	"	"
W	0.115	0.135		.126	.125	.125	.125	Micro	118-120
X	0.308	0.313		.310	.310	.310	.310	Vern	ML-7
Y	0.760	0.765		.760	.760	.760	.760	"	"
Z	0.352	0.372		.367	.367	.367	.367	"	"
AA	0.470	0.530		.500	.500	.500	.500	Rad gage	
AB	0.615	0.635		.628	.626	.626	.626	Vern	ML-7
AC	0.053	0.073		.063	.063	.063	.063	Rad gage	
AD	0.240	0.260		.247	.247	.247	.247	Vern	ML-7
AE	1.375	1.395		1.390	1.390	1.390	1.390	dial	
AF	0.115	0.135		.133	.133	.133	.133	Vern	ML-7
AG	0.240	0.280		.258	.258	.258	.258	"	"
AH	0.240	0.260		.245	.250	.250	.250	"	"
AI	2.000	2.020		2.007	2.004	2.004	2.004	dial	
AJ	0.023	0.043		.033	.033	.033	.033	Vern	ML-7

Accept/Reject

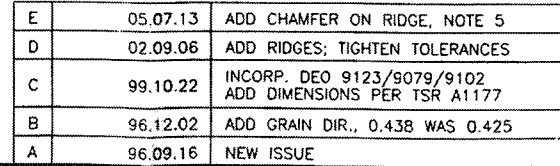
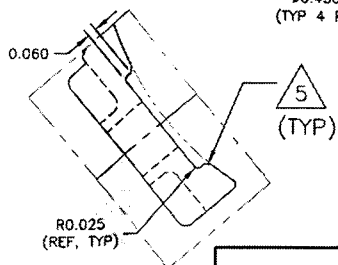
Measured by: <i>[Signature]</i>	Audited by: <i>[Signature]</i>
Date: 10-10-19	Date: 10/10/20

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	<i>[Signature]</i>

05.12.06 

MATERIAL: 7075-17351 (QQ-A-250/12) (REF DART SPEC. D6102-001)  
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1  
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART  
QSI 005 4.3  
BREAK ALL SHARP EDGES 0.010 TO 0.020  
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

- 



DESIGN	DRAWN BY	<b>DART</b>	<b>DART AEROSPACE LTD.</b> HAMMERSBURY, ONTARIO, CANADA
DS	PH		
CHECKED	APPROVED	DRAWING NO.	REV. E
<i>[Signature]</i>	<i>[Signature]</i>	02571	SHEET 1 OF 1
DATE	TITLE		SCALE
05.07.13	OUTER FWD SADDLE		2:1

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DART AEROSPACE LTD.

DETAIL C  
SCALE 4:3

SECTION A-A

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries